

Plan Early & Often

Avoid the Oops! and the Oh-My-Gosh Hurdles of the School Construction Process

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First Things First...

- When does the planning process begin?
- Who leads the decision making process throughout the life of a project?
- What types of consultants do you hire?
- How much should a school construction project cost?
- What deems a project successful?

First Things First...

The answers to these questions are...

Ambiguous and Open for Discussion!

When Planning... Keep It S.I.M.P.L.E.

- ◆ S Specific Focus
- ◆ I Inclusive
- ◆ M Meaningful and Kept on Track
- ◆ P Purposeful
- ◆ L Learning Outcomes are Universal
- ◆ E Expectations are Manageable and Communicated

Four Principles to Success

Principle 1	Principle 2	Principle 3	Principle 4
Arrive early, stay later and add value to everything you do	Never exchange excuses for results	Be proactive and fix problems before they occur	Above all else, always make the people around you look good... no matter what!

Key Factors for Project Success

- People
Build a Strong Foundation
- Plan
Road Map for Success
- Process
Identify All Entities that Affect Outcome
- Project
Simplify, Simplify, Simplify

Caution! Challenges Lie Ahead

- People
Internal and External—Make or Break
- Budgets
Realistic—Trust Your Resources
- Schedules
Never Assume...
- Communication
Integrate Face Time with Technology

Positive Side of Planning

- ◆ People: Core Foundation
 - Start with the *RIGHT* people both externally and internally
 - Training and professional development
- ◆ Plan: Long Term vs. Short Term
 - Identify realistic expectations—listen to trusted resources
 - Consider historical value in creating and executing the plan
 - Political pressures vs. experience

Positive Side of Planning

- ◆ Process: Read the Rules of the Game
 - Identify and understand all of the factors in the "Game"
 - Schedules, agencies, people, money, meetings, consultants, etc.
- ◆ Project: KISS Principle
 - Simplify
 - Details in Simplicity
 - Being willing to Act when necessary

Find and Retain Quality People

Start with good people or don't start at all. It takes bright, savvy, well-trained and enthusiastic people willing to serve and add value allowing your service strategy to work.

Project Disaster Areas

- ◆ People: Who's in Charge?
 - *Sudden change in leadership*
 - *Consultants not held accountable*
 - *Board plays "Trump Card"*
 - *Unskilled in-charge – owner pays for learning curve (both internally and externally)*
- ◆ Budgets: Reality vs. Fantasy
 - *Look at all possibilities not just the bottom line*
 - *Know the true cost of doing business*
 - *Examine the risks and associate the costs*

Project Disaster Areas

- ◆ Schedules: Plan for the Unplanned
 - *Phases and stages*
 - *Meetings, approval processes, and people*
 - *Mother nature*
 - *Materials and goods*
- ◆ Communication: Do You Have a Plan?
 - *Say what?*
 - *Internet and technology vs. people*
 - *Do you know the expectations and desired outcomes?*

Planning for Success

- ◆ In The Beginning
 - *Owner's Role*
 - *Architect's Role*
 - *Program/Project Manager's Role*
- ◆ Identifying Program Goals
 - *Who, What, When & How*
- ◆ Timelines and Budgets
- ◆ Create and Execute The Communication Plan

Planning For Success

- ◆ Incorporation of Consultants
 - *Site*
 - *State Agency Liaisons*
 - *Masterplanners*
 - *Plan Review/Cost Estimators*
 - *Program (curriculum)*
 - *Media/Technology*

Planning for Success

- ◆ Incorporation of Specialty Consultants
 - *Performing Arts*
 - *Vocational/Trade Campuses*
 - *Sports and Athletic Venues*
 - *Signage*
 - *Safety/Security*
 - *Landscaping*

In The Beginning

Owner's Role

- o *Identify needs of the program/project*
- o *Communicate the needs and outcome of the program/project*
- o *Hire right!*
 - Qualifications-based selection
 - Focus on outcomes and processes vs. price based selection
 - Hire the right people not just the firm
- o *Implement the program/project*

In The Beginning

Owner's Role

- o *Be accountable for all costs, budgets, schedules and consultants*
- o *Main contact to oversight committee and board*
- o *Provide viable facilities conducive for learning*
- o *Provide professional development and training for internal staff and students*
- o *Hold consultants accountable*

In The Beginning

Architect's Role: Design Team

- o *Project Architect is contracted lead throughout design and construction processes*
- o *May or may not be principal of firm*
- o *Responsible for coordinating work of external consultants and internal staff*
- o *Main contact for design and planning issues to board and district personnel*

In The Beginning

◆ Architect's Role: Design Team

- *Traditional design/bid/build method Architect hold contracts for external consultants including:*
 - Landscape architect
 - Civil, electrical and mechanical engineers
 - Specialty consultants including:
 - FFE, carpeting, technology
 - Kitchen, etc.

In The Beginning

◆ Program/Project Manager's Role

- *Program Managers provide oversight for multi-project building programs*
- *Responsible for communicating building program status to Owner*
- *Involved in contract development, establishing and monitoring budgets, schedules, cash flow projections*
- *Supervision of project and construction managers*

In The Beginning

◆ Program/Project Manager's Role

- *Project Managers provide oversight for the design and construction phases*
- *Serve as Owner's representative throughout project design and construction*
- *May be internal staff member or outside consultant to assist or augment district/campus staff in the management of a construction project or program*

In The Beginning

- ◆ Program/Project Manager's Role
 - Both PMs are responsible for communicating building program/project status to Owner
 - Serve as Owner's representative
 - Main point of contact between Owner and design team
 - PMs may be internal staff of external consultant
 - Architects and PMs should be hired based on qualifications vs. price shopping

Identifying Program Goals

- ◆ Who, What, When & How
 - The Planning and Design Committee
 - Superintendent
 - CBO/Facilities Director
 - Educational facilities planner
 - Architect
 - Program/project manager
 - M & O staff members
 - Department faculty members
 - Student representatives
 - Community members/business partners

Identifying Program Goals

- ◆ Who, What, When & How
 - Program and project goals
 - Planning issues
 - Identifying customers/demographics
 - Areas of specialty
 - Sacred cows
 - Community investments
 - Expectation: Internal and external
 - Revenue sources
 - Future trends and lessons learned

Identifying Program Goals


- Who, What, *When* & How
 - Early and often!
 - Prior to bond campaign
 - Strategic Implementation Plan
 - Prior to hiring internal extra staff and external program/project consultants
 - Throughout the bond campaign
 - Throughout the design process
 - Planning for the future

Identifying Program Goals

- Who, What, *When* & How
 - The Design Process
 - Planning: Educational Specification Development
 - Concept Design
 - Schematic Design
 - Design Development
 - Construction Documents
 - Bidding
 - Construction
 - Project completion


Identifying Program Goals

- Who, What, *When* & *How*
 - Oversight committee
 - Design committee
 - Master planning
 - Strategic implementation planning
 - Story boarding
 - Theme mapping
 - Collaborative process
 - Competitions



Educational Specifications

- ◆ List of characteristics of a facility on a space-by-space basis
- ◆ Ed specs also known as:
 - *Educational requirements*
 - *Performance specifications*
 - *Program specifications*
 - *Program of requirements*
 - *Learning space functions*
 - *Functional specifications*




Educational Specifications

- ◆ Serve as written documentation of educators' intent for program delivery and define the physical parameters of the learning environment
- ◆ New construction, assessing existing facilities, budgeting, and issues of equity
- ◆ Educational Environment Program or "trilogy of space and place"
 - *Desired community environment*
 - *Learning environment*
 - *Physical environment*




Educational Specifications

- ◆ Driven by a Strategic Plan
- ◆ Community Environment Phase
 - *Civic design, program planning and partnership development*
- ◆ Learning Environment
 - *Interpersonal relationships, learning activities, and learning time*
- ◆ Physical Environment
 - *Relationships of building to inhabitants, site, and greater environment*




Timelines and Budgets

- ◆ Strategic Planning Phase
- ◆ Concept Design Phase
- ◆ Schematic Phase
- ◆ Design Development Phase
- ◆ Construction Documents Phase
- ◆ Bidding (*too late to plan now!*)
- ◆ Construction (*hope you have it right*)



Timelines and Budgets

- ◆ Prepared Cost Estimates
 - *Design Development Phase*
 - Area, volume, and other single-unit rate (cost per square foot) methods
 - Elemental (Assemblies and subsystems) methods-middle ground between single unit and detailed quantity survey methods
 - *Completion of Construction Documents*
 - Quantity survey method (requires extensive use of materials and labor costs)



Implementation Process

- ◆ Tour other facilities in the area and abroad
- ◆ Ask administrators, teachers, and Maintenance & Operations staff for advice
- ◆ Clarify district's and specific campus' educational program and furniture needs through the Ed Spec development process (list of furnishings can be developed by space type)

Implementation Process

- ◆ Always think of the end user...who's the customer?
- ◆ Study habits and move patterns of students, faculty and staff
- ◆ Visit campus throughout occupied periods of time
- ◆ Visit specialty spaces to understand usage and flow
- ◆ Eliminate wasteful and unsafe habits

Implementation Process

- ◆ Plan for the present as well as for the future
- ◆ Consider long lead time for FF & E items
- ◆ Be aware of trends and plan around them not for them
- ◆ Be realistic! Planning can be painful and yet very rewarding

Challenge Project #1

How Would You Change the Outcome?



People, Budget, Schedules, Communication...



Follow Up

- Review goals and outcomes after each phase of project
- Incorporate end-users, planners, faculty, and community in review process
- Establish a review rubric
- Head off problems before they occur
- Celebrate after each phase completed!
- Rejoice for a job well done!


Focus on "Purpose"

If you don't know where you are going, you are liable to end up someplace else.

—Yogi Berra
Famed New York Yankee's Coach

If you don't know where you are going, any road will take you there.


—David Campbell
Industrial psychologist



Focus on "Purpose"

Vision without action is dreaming.
Action without vision is random activity. Vision and action together can change the world.

—Joel Barker
Futurist



Final Thoughts

I find the great thing in this world is, not where we stand, but in what direction we are moving.

—Oliver Wendell Holmes
American jurist
